

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019663**Date Inspected:** 28-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Yu Dong Ping  
**Inspected CWI report:** Yes No N/A  
**Electrode to specification:** Yes No N/A  
**Qualified Welders:** Yes No N/A  
**Approved Drawings:** Yes No N/A

**CWI Present:** Yes No  
**Rod Oven in Use:** Yes No N/A  
**Weld Procedures Followed:** Yes No N/A  
**Verified Joint Fit-up:** Yes No N/A  
**Approved WPS:** Yes No N/A  
**Delayed / Cancelled:** Yes No N/A

**Bridge No:** 34-0006**Component:** TOWER & OBG Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY#10

This QA Inspector observed the following work in progress

Flux Cored Arc Welding (FCAW):

Weld joint # 02 located on Bike Path BK009A1 – 001. Welder is identified as 040434. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – ESAB.

Weld joint # 02 located on Bike Path BK009A1 – 001. Welder is identified as 052075. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – ESAB.

Heat Straightening:

Heat Straightening being performed on Bike path component identified as BK008-001 by oxy-acetylene flame method to remove the distortion that occurred after welding. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei present at the location. This activity appeared to comply with the Heat Straightening Report # HSR1 (B) – 9965.

---

---

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

BAY#11

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007955

Magnetic Particle Testing (MT)

This QA inspector performed MT of the area previously tested and accepted by ZPMC Quality Control personnel.

This QA Inspector generated an MT report for this date. The member is identified as Tower Component. The weld designation reviewed as follows:

1. EAST TOWER LIFT-4

EAST TOWER LIFT-4, REPAIR AREAS AFTER BLASTING AND PAINTING (EXTERNAL)

Skin 'A' manhole weld at 129m – UNDER FILL

Edge of Skin 'B' at 140 M – ARC GOUGE

Skin 'D' façade weld at 123 M – POROSITY

Skin 'D' façade weld at 123 M – POROSITY

Skin 'D' façade weld at 139 M – POROSITY

Skin 'E' near to skin 'A' at 114 M – ARC GOUGE

Skin 'E' near to skin 'A' at 146 M – ARC GOUGE

EAST TOWER LIFT-4, REPAIR AREAS AFTER BLASTING AND PAINTING (INTERNAL)

Skin 'B' stiffeners 116.8 M – ARC STRIKE

SKIN 'A' 119 M double diaphragm – POROSITY

SKIN 'C' 119 M double diaphragm – BASE METAL PIT

SKIN 'D' diaphragm at 143 M between 1st and 2nd stiffeners from SKIN 'E' – POROSITY

SKIN 'D' diaphragm at 143 M between 1st and 2nd stiffeners from SKIN 'C' – CLUSTER OF POROSITY  
(See attached photo)

2. CABLE TRAY, EAST TOWER LIFT-4

ESD1-FASA4-2A/E-74; 75

This QA Inspector observed the following work in progress

Surface Welding by Shielded Metal Arc Welding (SMAW):

Surface welding / buttering being performed as per the critical weld repair report T-CWR678 located on Lift-5 tower grillage I-beam identified as WD1-BPSA5-5-EN2. Welder is identified as 046769. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 1G (1F) – Repair.

THICKNESS MEASUREMENTS OF I-BEAM FLANGES OF LIFT-5

This QA Inspector carried out the thickness measurements on I-beam flanges of Lift-5 grillage shafts after machining process. Measurements were recorded on the data sheet and submitted to the assigned task leader. The members are identified as Tower Components. (See attachedphoto)

1) WD1-BPSA5-4-1

2) WD1-BPSA5-4-2

3) WD1-BPSA5-6-N10

---

---

# WELDING INSPECTION REPORT

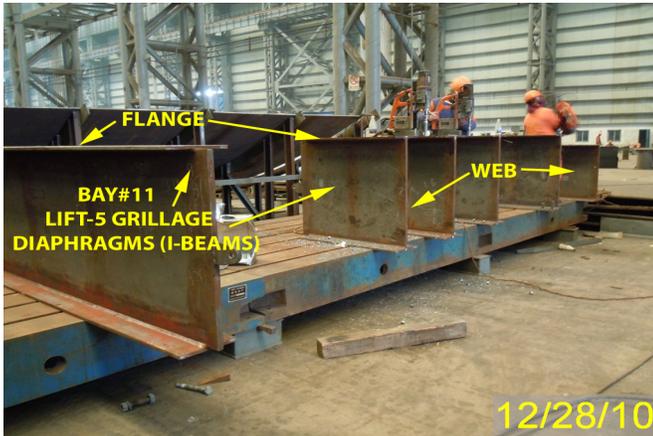
( Continued Page 3 of 3 )

---

---

- 4) WD1-BPSA5-6-WN2
- 5) WD1-BPSA5-6-E12
- 6) WD1-BPSA5-6-S24
- 7) WD1-BPSA5-7-W13
- 8) WD1-BPSA5-7-N7

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

No Relevant Conversations.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho- 15002048250, who represents the Office of Structural Materials for your project.

---

**Inspected By:** Kumar,Sandeep

Quality Assurance Inspector

---

**Reviewed By:** Clifford,William

QA Reviewer